

### **REMARKS/ARGUMENTS**

Claims 1-18 are pending. Claims 7-8, 10 and 13-14 are presently withdrawn from consideration. The specification has been amended to include the priority previously claimed by the Applicant and acknowledged by the USPTO. Claims 1 and 9 have been amended to provide antecedent basis for the resulting signals.

#### **1. Drawings**

The drawings were objected to because Figures 1-3 should be designated by a legend such as --Prior Art--. Corrected Figures 1-3 are submitted herewith with the legends thereof so amended. Approval of the corrected drawings is respectfully requested.

#### **2. Rejection of Claims 1-3, 6, 9, 11-12, 16 and 18 Under §103(a)**

Claims 1-3, 6, 9, 11-12, 16 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants Admitted Prior Art (AAPA) in view of U.S. Patent Publication 2001/0026589 (Sugiyama). The Applicant respectfully traverses this rejection.

Claim 1 recites a method for encoding dynamic graphic content, which includes a plurality of dynamic elements each of which having a plurality of appearance states, where the plurality of states of the plurality of elements lead to a plurality of views. The method includes:

- encoding a view in which all of the plurality of dynamic elements being in a first state as a reference picture;
- encoding remaining views in which at least one of the plurality of dynamic elements being in a state other than the first state as differential pictures with regards to said reference picture, to form a differential picture sequence; and
- multiplexing said reference picture and said differential picture sequence together to produce resulting signals, and providing the resulting signals in video format.

Claim 9 similarly recites a graphic encoding device with an encoder controlled by a controller, which are configured to implement the same functions.

As mentioned in the description particularly on page 1 paragraph 2, graphic content is a combination of text and pictures that a user will see when accessing, for example, a particular

website. The dynamic graphic content features such elements as forms, buttons and targeted information, the appearance of which is determined both by a user viewing the graphic content and by software generating the graphic content. For example, a dynamic element could be a graphic representation of a button which button may have three states, one in which the button is green, one in which the button is red, and in which the button is amber. Previously, in order to provide dynamic graphic content to an end user it has been necessary to consider all possible appearance states of all dynamic elements in a particular graphic content and to create as many views as there are variants. Thus, if there are  $N$  dynamic elements in a dynamic graphic content, denoted as  $e_1, \dots, e_N$ , and element  $e_i$  has  $m_i$  different appearance states, denoted by  $0, \dots, M_i - j$ , the number of static views required to create all possible appearance states of all dynamic elements is equal to the product of  $M_i$  ( $i = 1 - M$ ) denoted as  $M_i$  in Figure 3. This value will dramatically grow as  $M$  increases. For example, 10 dynamic elements with two states each lead to 1024 (210) possible views which must be created.

The advantage of the present invention is that by encoding a reference picture with all the dynamic elements in a first state, and then encoding remaining views in which at least one of the dynamic elements is in a different state in the form of differential picture sequence, the dynamic graphic content is more economically and effectively compressed, thus saving bandwidth and memory without large modifications to the receiving user device.

In contrast, AAPA discloses a method of processing the dynamic graphic content using a page by page process, where each possible view combination is separately created and encoded for each page. Then, all the video signals are multiplexed together. See page 2, and Fig. 3. The Examiner acknowledges on page 3 of the office action that AAPA is silent in regards to the use of reference and differential pictures for the dynamic element views.

Sugiyama discloses processing video pictures (i.e. moving picture frames) by coding first pictures using intra-picture coding or unidirectional inter-picture predictive coding, and second pictures coded by bidirectional inter-picture predictive coding using the first pictures or locally decoded pictures of the first pictures as the reference pictures, whereby they are then multiplexed

into a bitstream of lower bit rate. (See Abstract.) Sugiyama also explains MPEG coding, where pictures are divided into three different types (I, P, and B pictures), where I pictures are coded independently, P pictures are compressed by coding the differences in reference to preceding I or P pictures, and B pictures are compressed by coding the differences in reference to preceding or upcoming I or P pictures (see para. 0002). Sugiyama fails to suggest using reference and differential pictures for processing dynamic graphic content having a plurality of dynamic elements each having a plurality of appearance states leading to a plurality of views, as recited by claims 1 and 9.

The Examiner states it would have been obvious to incorporate the teachings of Sugiyama with AAPA to result in the claimed invention, for providing efficient coding of moving pictures. The Applicant respectfully traverses. First, the combination of AAPA and Sugiyama fails to result in the claimed invention, because the reference and differential pictures of Sugiyama are directed to the moving picture video, not to dynamic graphic content that includes a plurality of dynamic elements each of which having a plurality of appearance states leading to a plurality of views as recited by claims 1 and 9. Second, there is no suggestion in either AAPA or Sugiyama to use reference and differential picture encoding of dynamic graphic content. While multiplexed reference and differential picture encoding was known **for encoding moving picture bitstreams**, it is believed that the present inventor was the first to conceive of using multiplexed reference and differential picture encoding as claimed **for dynamic graphic content** with dynamic elements each having appearance states leading to a plurality of views. It is respectfully submitted that neither cited reference suggests such a solution **for dynamic graphic content** as claimed.

Therefore, for these reasons, it is respectfully submitted that claims 1 and 9 (and therefore claims 2-3, 6, 11-12, 16 and 18 dependent thereon), are not rendered obvious by AAPA in view of Sugiyama.

**3. Rejection of Claims 4, 15 and 17 Under §103(a)**

Claims 4, 15 and 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants Admitted Prior Art (AAPA) in view of Sugiyama, and in further view of Official Notice. The Applicant respectfully traverses this rejection.

Claims 4, 15 and 17 depend from claims 1 or 9, and are therefore considered allowable for the reasons set forth above in Part 2. The addition of Official Notice fails to cure the deficiencies of AAPA and Sugiyama.

**4. Rejection of Claim 5 Under §103(a)**

Claim 5 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants Admitted Prior Art (AAPA) in view of Sugiyama, and in further view of U.S. Patent Publication 2003/0159152 (Lin). The Applicant respectfully traverses this rejection.

Claim 5 depends from claim 1, and is therefore considered allowable for the reasons set forth above in Part 2. The addition of Lin fails to cure the deficiencies of AAPA and Sugiyama.

It is therefore respectfully submitted that the present application is in condition for allowance, and action to that end is respectfully requested.

Respectfully submitted,

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